

ABSTRACT

[0051] According to an embodiment of the present invention, a filer or other storage server is coupled to a network to store files for users of the network. An agent is coupled to the filer, and performs a scan or file walk for a Multi-Appliance Management Application (MMA) which is coupled to the filer and can monitor and manage the filer. The agent assigns identification (ID) numbers to the directories while scanning them. The ID numbers are assigned in a depth first search (DFS) order to reduce the amount of resources required for specific queries that may later be required. Several types of queries, including determining the parent of a node, determining all of the children of a node, determining the immediate children of a node, and determining all of the ancestors of a node may be easily accomplished using the ID numbers.